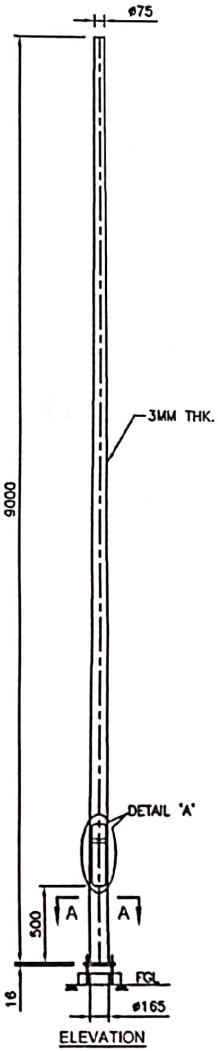
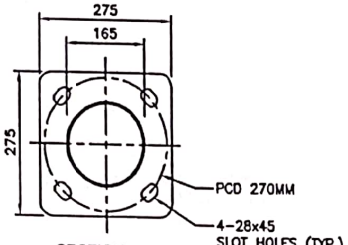
SR (Elle) 2019-20

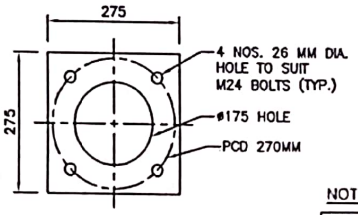
CONICAL POLE TECHNICAL DATA



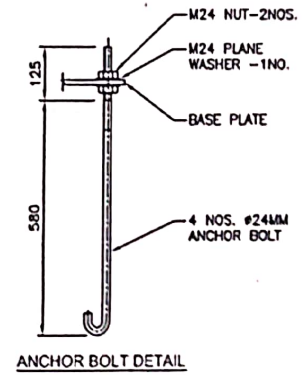
ELEVATION



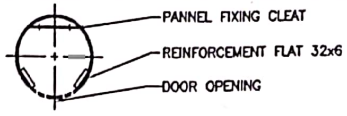
SECTION A-A
BASEPLATE DETAIL



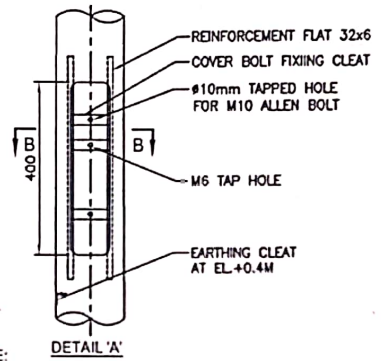
CAGE TEMPLATE DETAIL



ANCHOR BOLT DETAIL



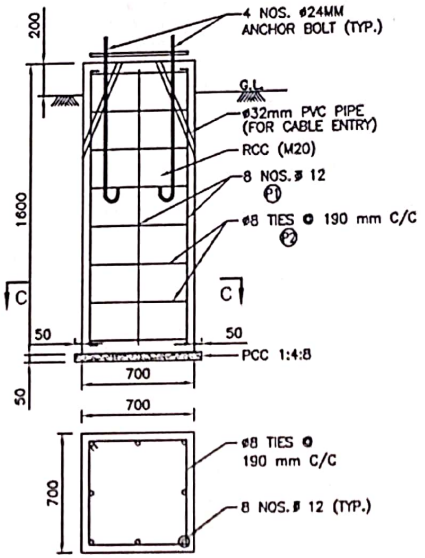
SECTION B-B



DETAIL 'A'

NOTE:

WIND SPEED M/S	47
CONCRETE MIX, VIBRATED	M20
MIN. COVER (MM)	50
STEEL	Fe415
SOIL BEARING CAPACITY T/M 2	10.00
SHAFT GRADE	ASTM A572-50
BASE PLATE GRADE	ASTM A572-50
ANCHOR BOLT GRADE	EN08



SECTION C-C

Conical Pole Details

Height of Pole (H) in MTR	Top Dia. (D) in MM	Bottom Dia. (D) in MM	Wall Thickness (t) in MM	Base Plate (b) in MM	PCD (p) in MM	Foundation Bolts (J)
3	75	105	3	200x200x12	200	M16x450
4	75	115	3	200x200x12	200	M16x600
5	75	125	3	200x200x12	200	M16x600
6	75	135	3	225x225x12	210	M20x600
7	75	145	3	240x240x12	235	M20x700
8	75	155	3	240x240x14	235	M20x750
9	75	165	3	275x275x16	270	M24x850
10	75	175	3	275x275x16	270	M24x850
11	85	195	3	300x300x16	300	M24x850
12	96	216	3	320x320x16	300	M24x850
14	100	240	3	340x340x20	330	M30x850
15	100	250	3	350x350x20	340	M30x850
16	100	260	3	360x360x25	350	M30x1000

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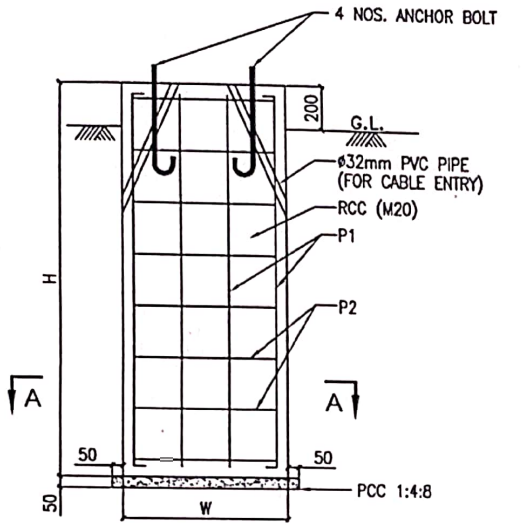
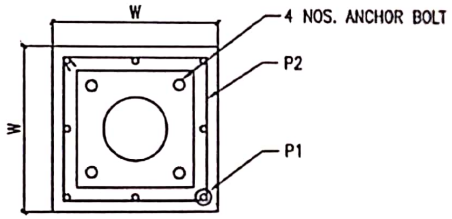
OCTAGONAL/CONICAL POLE - BAR BENDING DETAILS





SECTION A-A

* ABOVE FOUNDATION DETAILS BASED ON WIND SPEED 47 m/s FOR NORMAL SOIL CONDITION

NOTES:

1. ALL DIMENSIONS ARE IN 'MM' UNLESS OTHERWISE SPECIFIED.
2. MATERIAL AND CONSTRUCTION TO BE IN ACCORDANCE WITH IS: 456.
3. THE CONCRETE GRADE FOR FOUNDATION AND OTHER WORKS SHALL BE OF MIX M20 U.N.O.
4. IT IS ASSUMED THAT SOIL TYPE IS CLAY SOIL
   4.1 THE SOIL BEARING CAPACITY IS 10.0 T/m2
5. REINFORCEMENT SHALL BE OF GRADE Fe415 COMPLYING WITH IS:1786-1985.
6. CLEAR COVER TO MAIN REINFORCEMENT AT END OF MAIN BARS
   COLUMN : 40MM
7. DEVELOPMENT LENGTH FOR TENSION LDT =50 TIMES THE DIA OF BAR.
8. FOR ANY OTHER DETAILS CLAUSES OF IS-456, SP-34 AND SP-23 SHALL BE REFERRED.
9. IT IS ASSUMED THAT WATER TABLE IS NOT FOUND

BAR BENDING DETAILS

SR. NO.	HEIGHT	SHAPE	RCC	PCC	STEEL	RAFT REINFORCEMENT	
	(M)		(M^3)	(M^3)	(Kg.)	BOTTOM REINF. BOTHSIDE P1	TOP REINF. BOTHSIDE P2
1	3	OCTAGONAL	0.350	0.018	15.53	8 ϕ 12	ϕ8 @ 190 C/C
2	4	OCTAGONAL	0.350	0.018	15.53	8 ϕ 12	ϕ8 @ 190 C/C
3	5	OCTAGONAL	0.350	0.018	15.53	8 ϕ 12	ϕ8 @ 190 C/C
4	6	OCTAGONAL	0.540	0.025	18.34	8 ϕ 12	ϕ8 @ 190 C/C
5	7	OCTAGONAL	0.540	0.025	18.34	8 ϕ 12	ϕ8 @ 190 C/C
6	8	OCTAGONAL	0.676	0.028	19.76	8 ϕ 12	ϕ8 @ 190 C/C
7	9	OCTAGONAL	0.784	0.032	20.47	8 ϕ 12	ϕ8 @ 190 C/C
8	10	OCTAGONAL	0.900	0.036	26.93	12 ϕ 12	ϕ8 @ 190 C/C
9	11	OCTAGONAL	1.152	0.041	30.93	12 ϕ 12	ϕ8 @ 190 C/C
10	12	OCTAGONAL	1.458	0.050	32.49	12 ϕ 12	ϕ8 @ 190 C/C
11	14	OCTAGONAL	2.178	0.144	43.72	16 ϕ 12	ϕ8 @ 190 C/C
12	15	OCTAGONAL	2.880	0.169	50.09	16 ϕ 12	ϕ8 @ 190 C/C
13	16	OCTAGONAL	3.125	0.182	58.19	20 ϕ 12	ϕ8 @ 190 C/C
14	3	CONICAL	0.350	0.018	15.53	8 ϕ 12	ϕ8 @ 190 C/C
15	4	CONICAL	0.350	0.018	15.53	8 ϕ 12	ϕ8 @ 190 C/C
16	5	CONICAL	0.350	0.018	15.53	8 ϕ 12	ϕ8 @ 190 C/C
17	6	CONICAL	0.540	0.025	18.34	8 ϕ 12	ϕ8 @ 190 C/C
18	7	CONICAL	0.540	0.025	18.34	8 ϕ 12	ϕ8 @ 190 C/C
19	8	CONICAL	0.676	0.028	19.76	8 ϕ 12	ϕ8 @ 190 C/C
20	9	CONICAL	0.784	0.032	20.47	8 ϕ 12	ϕ8 @ 190 C/C
21	10	CONICAL	0.900	0.036	26.93	12 ϕ 12	ϕ8 @ 190 C/C
22	11	CONICAL	1.152	0.041	30.93	12 ϕ 12	ϕ8 @ 190 C/C
23	12	CONICAL	1.458	0.050	32.49	12 ϕ 12	ϕ8 @ 190 C/C
24	14	CONICAL	1.625	0.110	34.67	12 ϕ 12	ϕ8 @ 190 C/C
25	15	CONICAL	1.800	0.140	35.54	12 ϕ 12	ϕ8 @ 190 C/C
26	16	CONICAL	2.420	0.144	48.19	16 ϕ 12	ϕ8 @ 190 C/C

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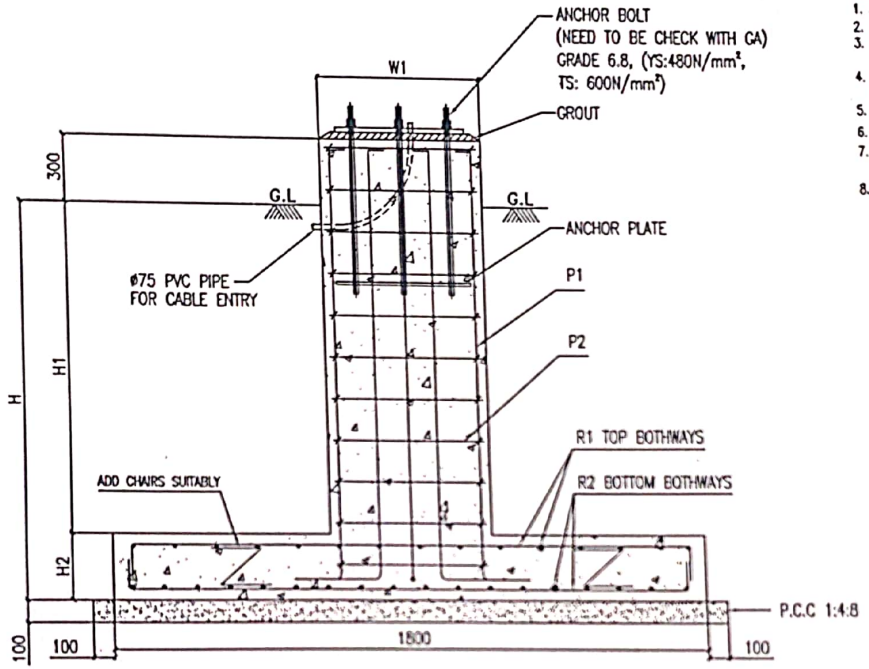
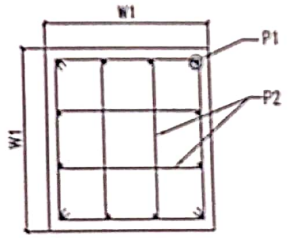
HIGH MAST FOUNDATION DETAILS



SECTIONAL ELEVATION



DETAIL OF PEDESTAL

NOTES:
1. ALL DIMENSIONS ARE IN 'MM' UNLESS OTHERWISE SPECIFIED.
2. MATERIAL AND CONSTRUCTION TO BE IN ACCORDANCE WITH IS: 456.
3. THE CONCRETE GRADE FOR FOUNDATION AND OTHER WORKS SHALL BE OF MIX M25 U.N.O.
4. REINFORCEMENT SHALL BE OF HIGH YIELD STRENGTH DEFORMED BARS COMPLYING WITH IS:1786-1985.
5. CLEAR COVER IS 50MM TO MAIN REINFORCEMENT AT END OF MAIN BARS
6. DEVELOPMENT LENGTH FOR TENSION LDT=50 TIMES THE DIA OF BAR.
7. FOR ANY OTHER DETAILS CLAUSES OF IS-456, SP-34, SP-16 AND SP-23 SHALL BE REFERRED.
8. IT IS ASSUMED THAT SOIL TYPE IS SANDY SOIL WITH CLAY CONTENT 5-10% WITHOUT WATER TABLE, IF ANY CHANGE APPROACH VALMONT FOR REVISED DESIGN DRAWING.
   8.1 THE SOIL BEARING CAPACITY IS 10.0 T/m2
   8.2 ANGLE OF REPOSE 0 DEG
   8.3 DENSITY OF SOIL 1.44 T/m3

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HIGH MAST TECHNICAL DATA

TECHNICAL DATA FOR HIGH MAST	12 Mtr/12.5Mtr	16Mtr	20Mtr	25Mtr	30Mtr
Base dia. and top diameter (A/F)	Base - 310 mm, Top - 100 mm	Base - 410 mm, Top - 150 mm	Base - 460 mm, Top - 150 mm	Base - 540 mm, Top - 200 mm	Base - 610 mm, Top - 150 mm
Plate thickness	3 mm	Bottom - 4 mm, Top - 3 mm	Bottom - 4 mm , Top - 3 mm	Bottom - 5 mm, Middle - 4 mm, Top - 3 mm	Bottom - 5 mm , Middle - 4 mm, Top - 4 mm
Cross section of Mast	12 sided polygon.	20 sided polygon.	20 sided polygon.	20 sided polygon.	20 sided polygon.
Diameter of base plate	460 mm	570 mm	670 mm	730 mm	840 mm
Thickness of base plate	20 mm	25 mm	25 mm	30 mm	30 mm
Lightning protection finial	G.I single spike of length 1200 mm	G.I single spike of length 1200 mm	G.I single spike of length 1200 mm	G.I single spike of length 1200 mm	G.I single spike of length 1200 mm
Number of foundation bolts	6 nos.	8 nos.	8 nos.	12 nos.	12 nos.
PCD of foundation bolts	385 mm	490 mm	490 mm	640 mm	640 mm
Type / diameter / length of foundation bolts	TS600 / 24 mm dia / 750 mm long	TS600 / 24 mm dia / 850 mm long	TS600 / 30 mm dia / 750 mm long	TS600 / 30 mm dia / 850 mm long	TS600 / 30 mm dia / 850 mm long
LANTERN CARRIAGE					
Material of construction	50 OD ERW Class B - M. S. Pipe	60 OD ERW Class B - M. S. Pipe	60 OD ERW Class B - M. S. Pipe	60 OD ERW Class B - M. S. Pipe	60 OD ERW Class B - M. S. Pipe
Load carrying capacity	6 Luminaires	12 Luminaires	12 Luminaires	16 Luminaires	12 Luminaires
TRAILING CABLE					
Conductor	Copper, 5 core, 2.5 sq mm	Copper, 5 core, 4 sq mm	Copper, 5 core, 4 sq mm	Copper, 8 core, 2.5 sq mm	Copper, 5 core, 4 sq mm
Insulation /Sheathed	PVC insulated & PVC scheathed	EPR insulated & PCP scheathed	EPR insulated & PCP scheathed	EPR insulated & PCP scheathed	EPR insulated & PCP scheathed
No. of cables / circuits per mast	One	One	One	One	One
WINCH / POWER TOOL					
Type / SWL of wnch	Double Drum / 350 Kg	Double Drum / 500 Kg	Double Drum / 750 Kg	Double Drum / 750 Kg	Double Drum / 750 Kg
Method of operation	Motorised / Manual	Motorised/Manual	Motorised/Manual	Motorised/Manual	Motorised/Manual
Motor capacity	0.5 HP	1 HP	1 HP	1.5 HP	1.5 HP
No of speeds	Single speed	Single speed	Single speed	Single speed	Single speed
STAINLESS STEEL WIRE ROPE					
Breaking load capacity	1450 KN	2350 KN	3400 KN	3400 KN	3400 KN

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